California Cancer Commission Studies*

Chapters XIX and XX

Carcinoma of the Stomach

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THE yearly deaths from carcinoma of the stomach number approximately 45,000. It is estimated that 10,000 of the patients who die might be saved if they were operated upon early. Treatment by x-ray and radium is of no value. *Cancer of the stomach cannot be cured except by removal of the growth.*

Cures of cancer of the stomach will increase only with its earlier recognition. Its onset is insidious, usually with few symptoms, and there is no single group of symptoms which is absolutely characteristic. Certainly *any person 35 years of age or over who has indigestion of more than one week's duration should be suspected of having carcinoma of the stomach.* A short history of indigestion in an older man is an alarming symptom, even without a palpable mass. Symptoms of obstruction may indicate a tumor occurring at the outlet of the stomach. Chronic indigestion, loss of weight or strength or both, or vomiting of blood or any material that looks like blood, indicate the need for careful investigation. Do not wait for the appearance of these symptoms before investigation, because some of them may indicate already advanced disease.

When carcinoma of the stomach is suspected, it is up to the doctor, with the cooperation of the patient, to do everything possible to prove or disprove this diagnosis. A careful physical examination must always be done. This should include a rectal examination, since one of the first findings in carcinomas of some types is a so-called rectal shelf—which, however, indicates incurable disease.

A careful x-ray examination, particularly fluoroscopic examination, should be done by a qualified radiologist to determine the possibility of a filling defect, or an irregularity or rigidity of a portion of the stomach. It should be stressed that *if the roentgen examination is negative, a patient with continued symptoms referable to his stomach should have a repeat examination after a period of two weeks,* regardless of whether or not he is on any sort of special diet.

A routine blood count is important. Many patients with indigestion have a moderate to severe secondary anemia. Too many are treated for an indefinite period for an unexplained secondary anemia. *Any unexplained secondary anemia means either carcinoma of the stomach or carcinoma of the right colon until this is absolutely disproved.* A gastric analysis is informative, as an achlorhydria would point toward, but not necessarily clinch, the presence of cancer of the stomach. Achlorhydria is found in 60 per cent of patients with carcinoma of the stomach.

Every patient with pernicious anemia should have a fluoroscopic examination of the stomach yearly, since approximately 8 per cent of these patients develop cancer.

Gastroscopy, *in competent hands,* may be of value in differential diagnosis.

Too often doctors tell their patients that nothing can be done for cancer of the stomach. This pessimistic attitude is all wrong. Necropsy data show that over 20 per cent of persons dying of cancer of the stomach have a lesion which is still confined to the stomach. *An exploratory operation should be done in every case of cancer of the stomach unless distant metastases are unequivocally demonstrated.* A resectable lesion is frequently found at operation, even though preoperative examination reveals a large, bulky tumor palpable in the upper abdomen, a large filling defect shown by x-ray, achlorhydria and secondary anemia. Some of these patients live well beyond the five-year survival period. *The surgeon must always be prepared to do an extensive and drastic procedure.* (Plate I.) What is inoperable in the hands of an inexperienced surgeon may be resectable in other hands. In some cases even when there is metastasis, a palliative operation may afford the patient relief for a considerable time. The operative technique and preoperative and postoperative care of these patients have been developed to a very high degree. Subtotal or total resection of the stomach for carcinoma should be carried out with a mortality rate of 10 to 15 per cent, or less in special clinics.

It is known, of course, that the five-year survival rate in all cases of cancer of the stomach is very low (10 to 15 per cent). A tumor occurring at the outlet of the stomach may cause symptoms of obstruction leading to an early diagnosis, and for this group the five-year survival rate is higher (18 per cent). Doctors in general should keep in mind that the only way to increase the survival rate for carcinoma of the stomach is to make the diagnosis *early* while the lesion is still localized in the stomach. Livingston and Pack as well as Walters, Gray and Priestley have shown that if gastric resection can be done when the carcinoma of the stomach is entirely confined to that organ the five-year survival rate reaches 55 per cent.

*Organized by the Editorial Committee of the California Cancer Commission.

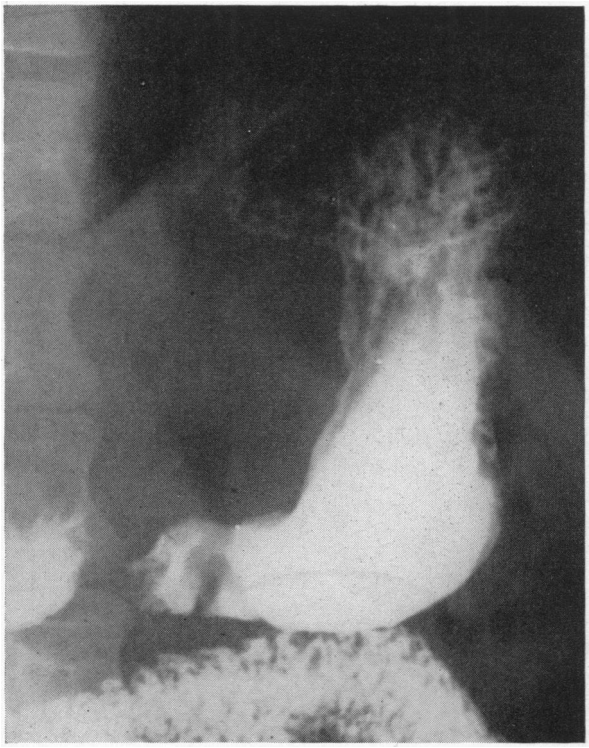

Figure 1.—Roentgenogram of 56-year-old man with history of ulcer for two years. Films were read as showing a prepyloric ulcer. Medical treatment prescribed. 1941.

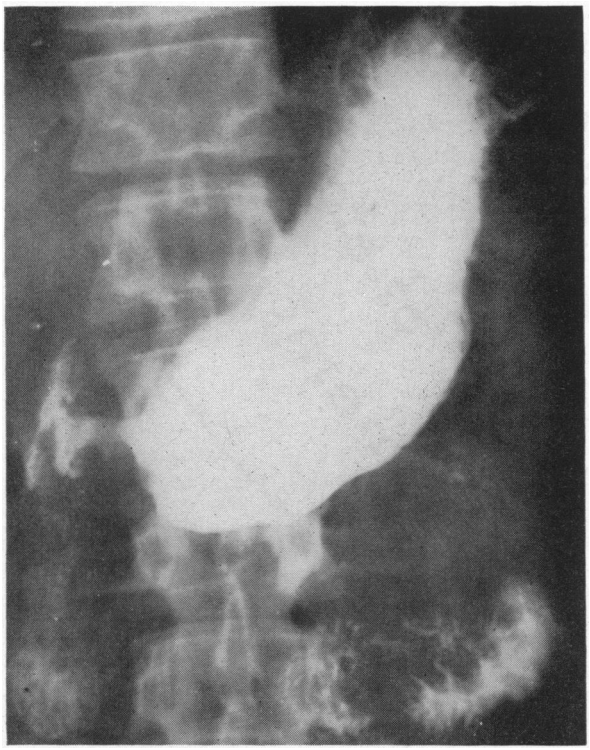

Figure 2.—Same patient as in Figure 1, 1943. Medical treatment continued.

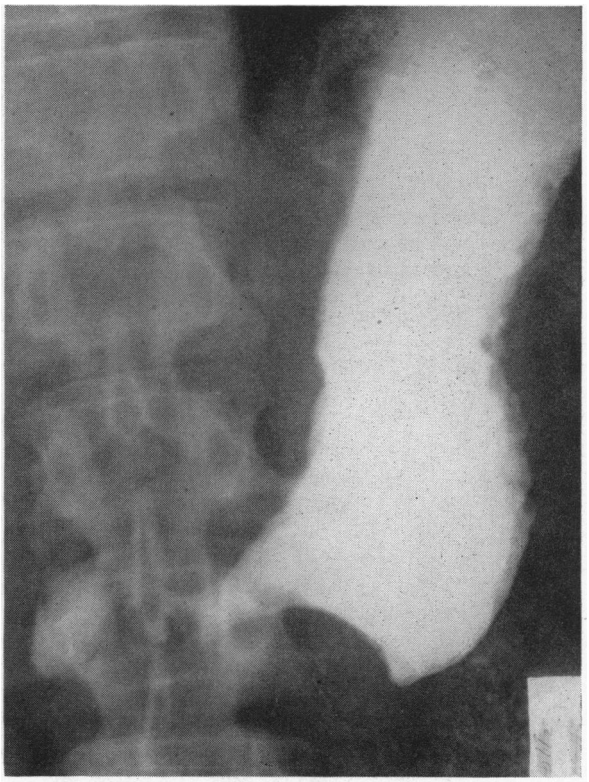

Figure 3.—Same patient as Figure 1 and 2, 1946. Radiologist, patient, and patient's physician all agreed that he now had cancer of the stomach. How much better if surgery had been done in 1941 or 1943, instead of 1946!

The relationship of ulcers of the stomach to carcinoma is a question that frequently arises. Any gastric ulcer is liable to suspicion until proved benign. We know that some carcinomatous ulcers of the stomach will show evidence of healing on a medical regimen (See Figures 1, 2, 3). Any gastric ulcer that does not improve markedly and practically disappear in two weeks under medical treatment should be operated upon and a subtotal gastric resection done with removal of one-half to three-fourths of the stomach, giving the ulcer a very wide margin. About 18 to 20 per cent of gastric ulcers which are thought to be "benign" are found, on microscopic examination, to be carcinoma. The five-year survival rate in these cases is 40 to 60 per cent.

Other gastric tumors that might be considered are lymphosarcoma, leiomyoma, and polyps. Polyps in the stomach are definitely precancerous lesions; therefore, they should be removed either by local excision or by subtotal gastric resection. The leiomyomas are not usually malignant, but may undergo malignant changes; while they are not usually diagnosed preoperatively, any tumor in the stomach should be removed surgically if possible. Lymphosarcoma of the stomach, if localized, should be removed surgically. Again the tumor is not usually diagnosed specifically before operation. Lymphosarcoma does respond, at least for a period of time, to x-ray therapy; so if there is an extensive involvement

of the stomach with regional spread, a biopsy should be taken to prove the diagnosis but no further surgery should be done. The patient should then be sent to a competent radiologist for radiation therapy.

SUMMARY

Cancer of the stomach is a frequent malignant lesion. Any persistent indigestion in an individual over 35 years of age—particularly a male, as cancer is more frequent in males than in females—indicates the need for a physical examination and x-ray and laboratory studies either to demonstrate or rule out a carcinoma of the stomach. The only treatment for carcinoma of the stomach is complete excision of the tumor with a wide margin of normal tissue. *The only hope for increasing the number of cures of carcinoma of the stomach is the earlier recognition and earlier surgical treatment of this disease.* The pessimism of so many doctors is wrong. It causes delay and destroys the only chance of a cure by early operation.

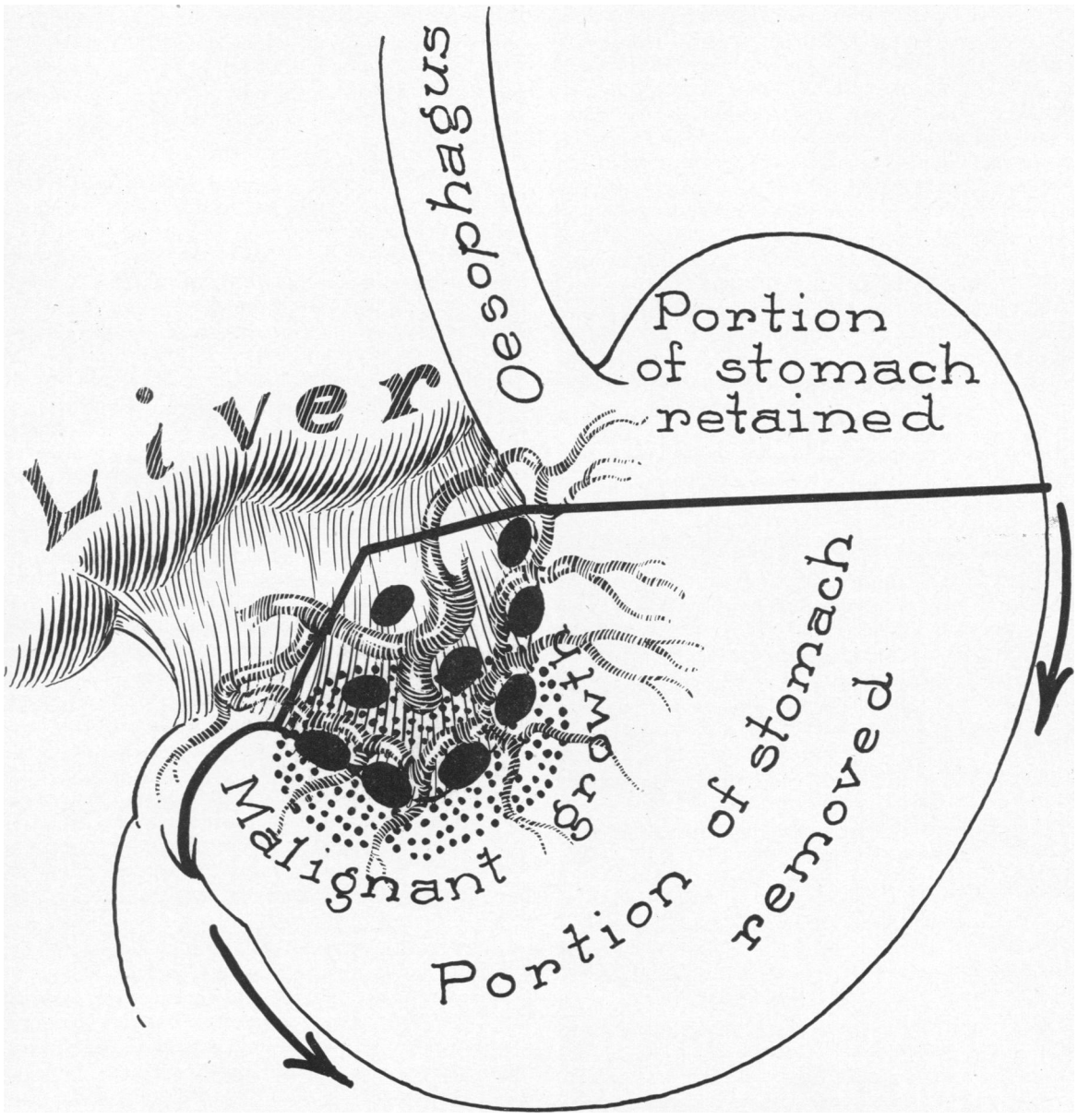

Plate I.—Showing the amount of stomach which should be removed for the ordinary carcinoma of the stomach. In carcinoma higher up, a total resection should be done. The entire lesser curvature and lesser omentum, as well as the greater omentum, should be removed.